



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY, FLORIDA
PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208
T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

Eco Window Systems, LLC
9114 NW 106 Street
Medley, FL 33178

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "400" Aluminum Window Wall System With Window Inserts – L.M.I.

APPROVAL DOCUMENT: Drawing No. **W09-42**, titled "Series 400 Alum. Window Wall System (L.M.I.)", sheets 1 through 09 of 09, dated 08/13/09 with revision "A" dated 12/11/12, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P. E., bearing the Miami-Dade County Product Control Section Approval Stamp with the Notice of Acceptance number and Approval Date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Jaime D. Gascon, P. E.**



J. Gascon
12/13/12

NOA No. 12-0801.02
Expiration Date: December 20, 2017
Approval Date: December 20, 2012
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **W09-42**, titled "Series 400 Alum. Window Wall System (L.M.I.)", sheets 1 through 09 of 09, dated 08/13/09 with revision "A" dated 12/11/12, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P. E.

B. TESTS

1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
along with marked-up drawings and installation diagram of Aluminum Window Wall System, prepared by Hurricane Engineering & Testing, Inc., Test Report No. **HETI-10-3129**, dated 10/18/10, signed and sealed by Candido F. Font, P. E.
2. Test reports on: 1) Large Missile Impact Test per FBC, TAS 201-94
2) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of Aluminum Window Wall System, prepared by Hurricane Engineering & Testing, Inc., Test Reports No.'s **HETI-10-3071**, **HETI-10-3072**, **HETI-10-3073**, **HETI-10-3074** and **HETI-10-3075**, all dated 10/18/10, all signed and sealed by Candido F. Font, P. E.
3. Test reports on: 1) Safety Performance Test, (class A, Sec. 5) per ANSI Z97.1-1984 CPSC 16 CFR, CH II, Part 1201
along with marked-up drawings and installation diagram of Aluminum Window Wall System, prepared by Hurricane Engineering & Testing, Inc., Test Report No. **HETI-10-3096**, dated 10/18/10, signed and sealed by Candido F. Font, P.E.

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC-2010**, submitted dated 05/23/12, prepared by Al-Farooq Corporation, signed, sealed and dated 12/12/12 by Javad Ahmad, P. E.
2. **Glazing complies with ASTM E 1300-04**

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **11-0624.01** issued to **E.I. DuPont DeNemours & Co., Inc.** for their "**DuPont Butacite® PVB Interlayer**" dated 09/08/11, expiring on 12/11/16.



Jaime D. Gascon, P. E.

Product Control Section Supervisor

NOA No. 12-0801.02

Expiration Date: December 20, 2017

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F. STATEMENTS

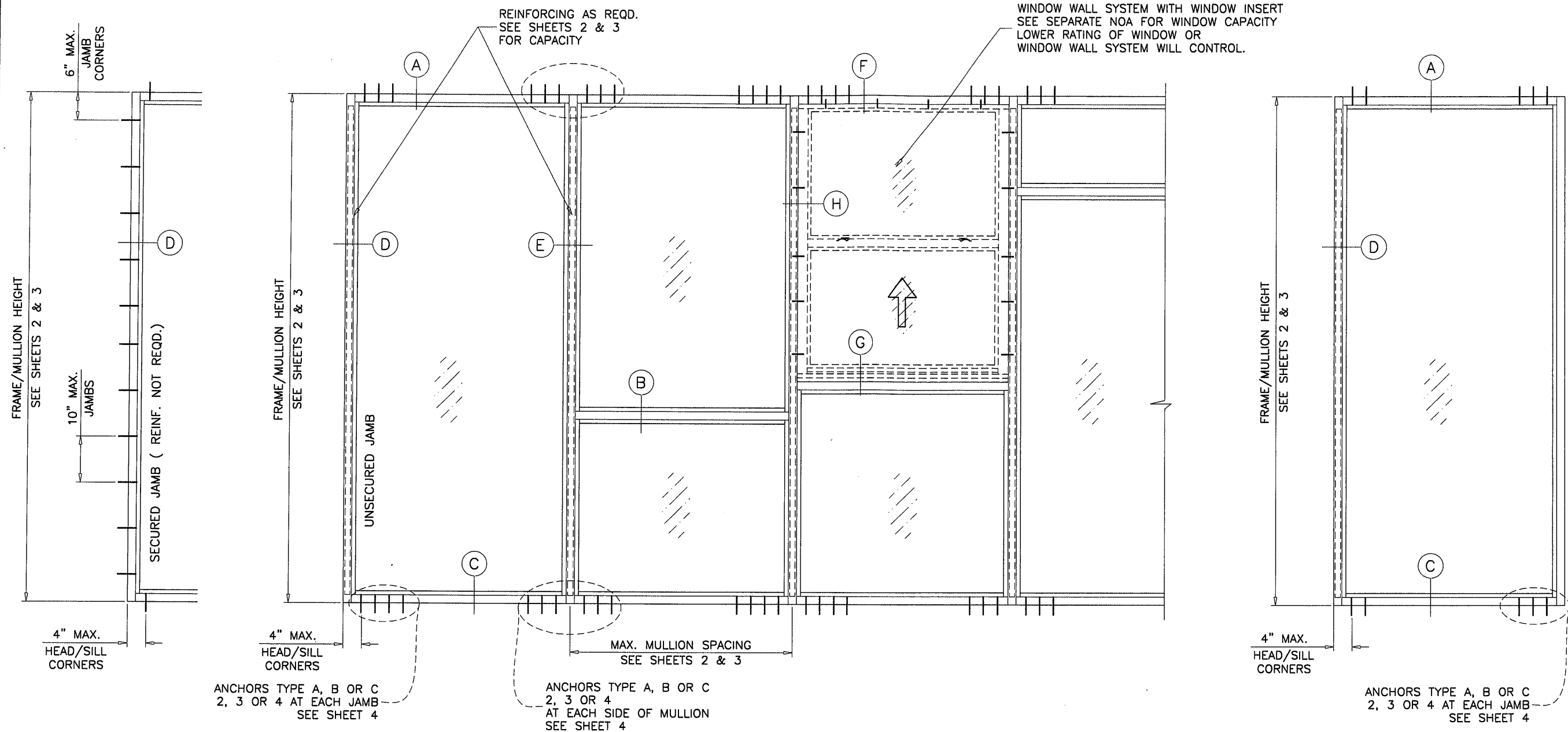
1. Statement letter of no financial interest, conformance and complying with **FBC-2010**, issued by Al-Farooq Corporation, dated 03/02/12, signed and sealed by Javad Ahmad, P. E.
2. Laboratory compliance letters for Test Reports No.'s **HETI-10-3071, HETI-10-3072, HETI-10-3073, HETI-10-3074, HETI-10-3075, HETI-10-3096** and **HETI-10-3129**, all issued by Hurricane Engineering & Testing, Inc., all dated 10/18/10, all signed and sealed by Candido F. Font, P. E.
3. Proposal No. **10-0233R** issued by Product Control, dated 07/12/10, signed by Manuel Perez, P. E.

G. OTHERS

1. None.



Jaime D. Gascon, P. E.
Product Control Section Supervisor
NOA No. 12-0801.02
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SERIES 400 ALUMINUM WINDOW WALL SYSTEM

THIS SYSTEM IS RATED FOR LARGE & SMALL MISSILE IMPACT
SHUTTERS ARE NOT REQUIRED.

CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BLDG. CODE SECTION 2003.8.4.

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1** DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2** CHECK WINDOW WALL SYSTEM CAPACITY FOR DESIRED HEIGHT AND MULLION SPACING USING CHARTS ON SHEETS 2 & 3.
THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 3** USING CHARTS ON SHEET 5 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 4** VERIFY UNANCHORED JAMBS, IF USED AS PER SHEET 7.
- STEP 5** THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.

Approved as complying with the
Florida Building Code
Date 12-13-2012
NOA# 12-0801.02
Miami Dade Product Control
By [Signature]

LARGE MISSILE IMPACT

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538

DEC 12 2012

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978
STORE\W09-42ECO

SERIES 400 ALUM WINDOW WALL SYSTEM (L.M.I.)
ECO WINDOW SYSTEMS, LLC.
9114 N.W. 106 STREET
MEDLEY, FL. 33178
TEL. (305) 885-5299 FAX (305) 885-5902

revisions:	no	date	by	description
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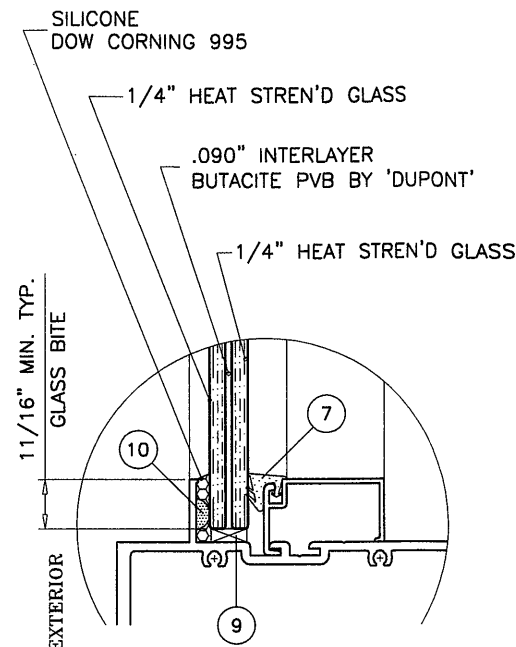
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chk. by:	

drawing no.

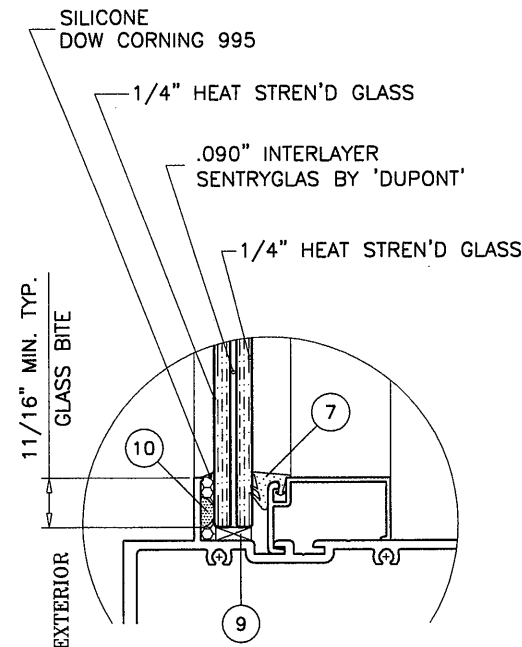
W09-42

sheet 1 of 9

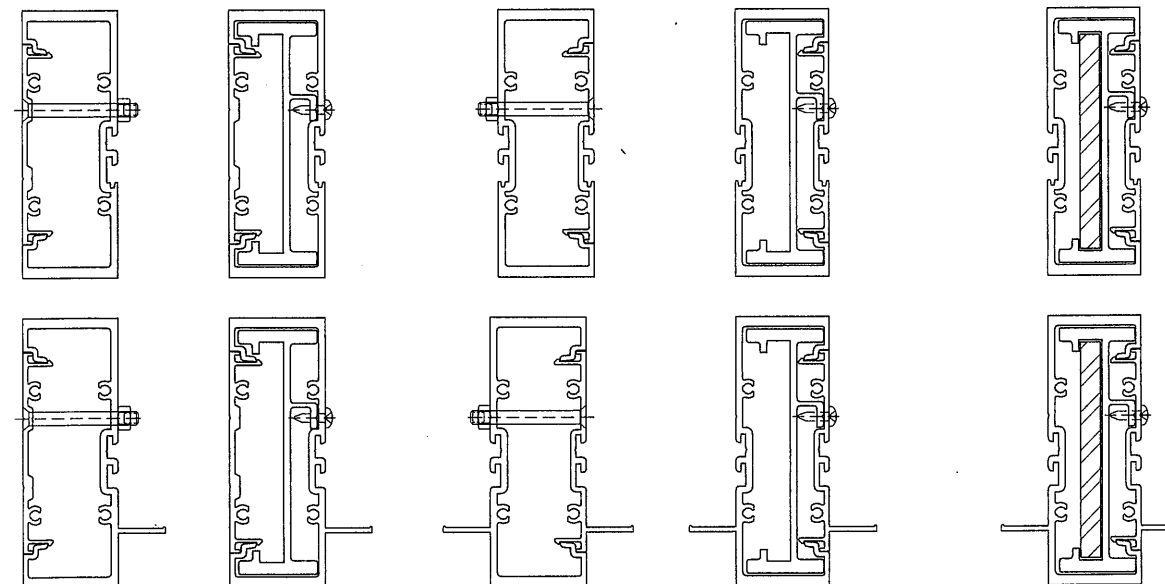
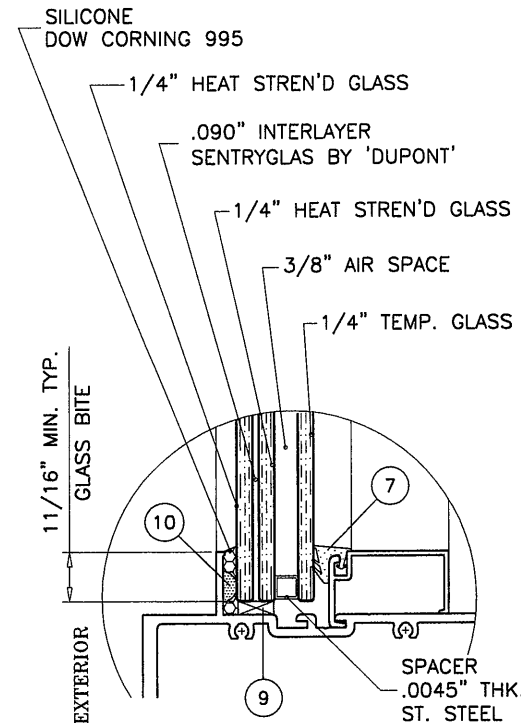
JAMB & MULLION LOAD CAPACITY - PSF JAMBS & MULLIONS WITHOUT INTERMEDIATE HORIZONTALS											
NOMINAL DIMS.		JAMBS				MULLIONS					
		JAMB 'J1'		JAMB 'J2'		MULL 'M1'		MULL 'M2'		MULL 'M3'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	84"	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
42"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
54"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
60"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
30"	90"	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
42"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
54"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
60"		80.0	100.0	80.0	100.0	80.0	94.8	80.0	100.0	80.0	100.0
30"	96"	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
42"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
54"		80.0	100.0	80.0	100.0	80.0	95.9	80.0	100.0	80.0	100.0
60"		80.0	100.0	80.0	100.0	80.0	87.3	80.0	100.0	80.0	100.0
30"	102"	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
42"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	90.3	80.0	100.0	80.0	100.0
54"		80.0	100.0	80.0	100.0	80.0	80.8	80.0	100.0	80.0	100.0
56"		80.0	100.0	80.0	100.0	73.6	73.6	80.0	100.0	80.0	100.0
30"	108"	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	86.6	80.0	100.0	80.0	100.0
42"		80.0	100.0	80.0	100.0	80.0	75.5	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	67.4	80.0	100.0	80.0	100.0
53"		80.0	95.9	80.0	100.0	62.1	62.1	80.0	99.2	80.0	100.0
30"	114"	80.0	100.0	80.0	100.0	80.0	86.9	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	73.3	73.3	80.0	100.0	80.0	100.0
42"		80.0	98.5	80.0	100.0	63.8	63.8	80.0	100.0	80.0	100.0
48"		80.0	87.7	80.0	100.0	56.8	56.8	80.0	95.0	80.0	100.0
50"		80.0	84.7	80.0	100.0	54.9	54.9	80.0	91.6	80.0	100.0
30"	120"	80.0	100.0	80.0	100.0	74.3	74.3	80.0	100.0	80.0	100.0
36"		80.0	96.7	80.0	100.0	62.6	62.6	80.0	100.0	80.0	100.0
42"		80.0	84.0	80.0	100.0	54.4	54.4	80.0	91.2	80.0	100.0
48"		74.6	74.6	80.0	100.0	48.3	48.3	80.0	81.1	80.0	100.0



MAXIMUM DESIGN LOAD RATING = + 65.0 PSF
(FOR GLASS TYPE G1L ONLY) - 75.0 PSF



GLAZING OPTIONS



JAMB 'J1'		JAMB 'J2'		MULLION 'M1'		MULLION 'M2'		MULLION 'M3'	
Ix IN^4	Sx IN^3	Ix IN^4	Sx IN^3	Ix IN^4	Sx IN^3	Ix IN^4	Sx IN^3	Ix IN^4	Sx IN^3
4.731	2.5580	10.5919	4.1062	6.7306	2.6093	10.8376	4.2014	10.8376	4.2014
ALUMINUM		STEEL		TOTAL		Ix ALUM + Ix STL X 2.9		16.6376	

Approved as complying with the
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Date 12/12/2012
NOA# 12-0801.02
Miami-Dade Product Control
By [Signature]

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-04 (3 SEC. GUSTS).

DEC 12 2012

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revisions:

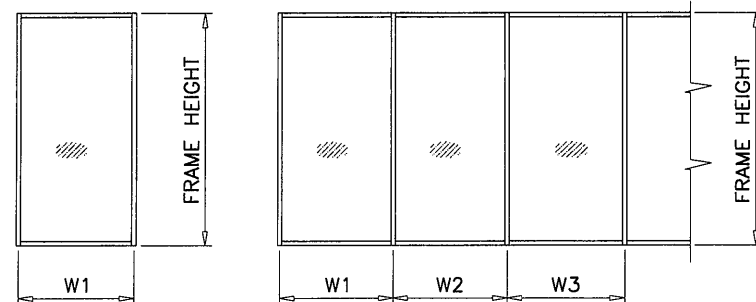
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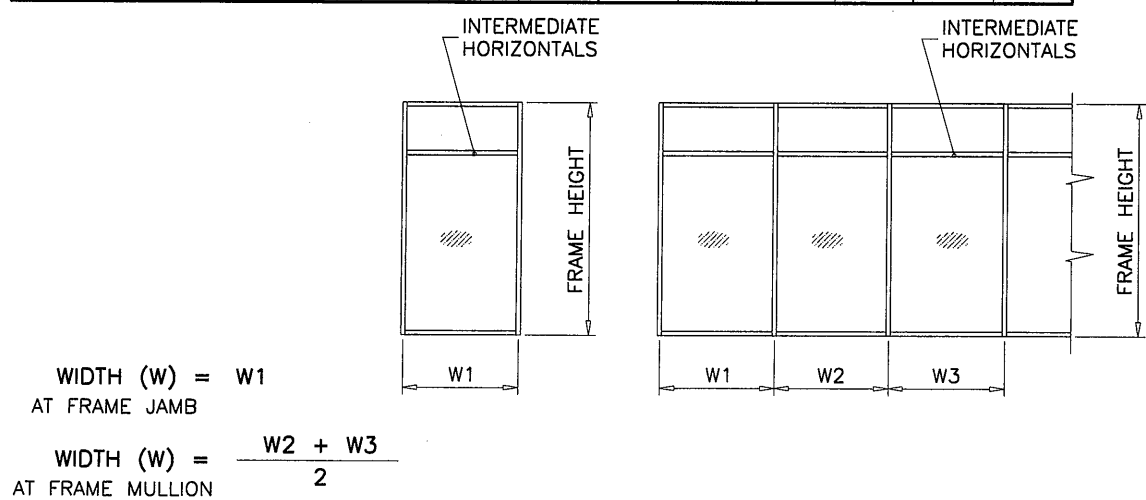
drawing no.
W09-42
sheet 2 of 9

WIDTH (W) = W1
AT FRAME JAMB

WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION



JAMB & MULLION LOAD CAPACITY - PSF											
NOMINAL DIMS.		JAMBS				MULLIONS					
		JAMB 'J1'		JAMB 'J2'		MULL 'M1'		MULL 'M2'		MULL 'M3'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	84"	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
42"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
54"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
60"		80.0	100.0	80.0	100.0	80.0	93.8	80.0	100.0	80.0	100.0
30"	90"	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
42"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
54"		80.0	100.0	80.0	100.0	80.0	89.9	80.0	100.0	80.0	100.0
60"		80.0	100.0	80.0	100.0	80.0	80.9	80.0	100.0	80.0	100.0
30"	96"	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
42"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	88.1	80.0	100.0	80.0	100.0
54"		80.0	100.0	80.0	100.0	78.3	78.3	80.0	100.0	80.0	100.0
60"		80.0	100.0	80.0	100.0	70.5	70.5	80.0	100.0	80.0	100.0
30"	102"	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	98.6	80.0	100.0	80.0	100.0
42"		80.0	100.0	80.0	100.0	80.0	84.5	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	73.9	73.9	80.0	100.0	80.0	100.0
54"		80.0	100.0	80.0	100.0	65.7	65.7	80.0	100.0	80.0	100.0
56"		80.0	97.8	80.0	100.0	63.4	63.4	80.0	99.4	80.0	100.0
30"	108"	80.0	100.0	80.0	100.0	80.0	99.6	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	83.0	80.0	100.0	80.0	100.0
42"		80.0	100.0	80.0	100.0	71.2	71.2	80.0	100.0	80.0	100.0
48"		80.0	96.1	80.0	100.0	62.3	62.3	80.0	100.0	80.0	100.0
53"		80.0	87.1	80.0	100.0	56.4	56.4	80.0	93.6	80.0	100.0
30"	114"	80.0	100.0	80.0	100.0	80.0	84.7	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	70.6	70.6	80.0	100.0	80.0	100.0
42"		80.0	93.4	80.0	100.0	60.5	60.5	80.0	100.0	80.0	100.0
48"		80.0	81.7	80.0	100.0	52.9	52.9	80.0	88.8	80.0	100.0
50"		78.5	78.5	80.0	100.0	50.8	50.8	80.0	85.3	80.0	100.0
30"	120"	80.0	100.0	80.0	100.0	72.6	72.6	80.0	100.0	80.0	100.0
36"		80.0	93.5	80.0	100.0	60.5	60.5	80.0	100.0	80.0	100.0
42"		80.0	80.1	80.0	100.0	51.9	51.9	80.0	87.0	80.0	100.0
48"		70.1	70.1	80.0	100.0	45.4	45.4	76.2	76.2	80.0	94.0



JAMB 'J1'

JAMB 'J2'

MULLION 'M1'

MULLION 'M2'

MULLION 'M3'

Ix IN ⁴	Sx IN ³
4.731	2.5580

Ix IN ⁴	Sx IN ³
10.5919	4.1062

Ix IN ⁴	Sx IN ³
6.7306	2.6093

Ix IN ⁴	Sx IN ³
10.8376	4.2014

	Ix IN ⁴	Sx IN ³
ALUMINUM	10.8376	4.2014
STEEL	2.000	1.0000
TOTAL	16.6376	
Ix ALUM + Ix STL X 2.9		

Approved as complying with the

Approved as complying with the
 Florida Building Code
 Date 12/20/2012
 NOA# 12-0801.02
 Miami Dade Product Control
 By [Signature]

Engr: JAVAD AHMAD
 CIVIL
 FLA. PE # 70592
 C.A.N. 3538
[Signature]
 DEC 12 2012

NOTE:
 GLASS CAPACITIES ON THIS SHEET ARE
 BASED ON ASTM E1300-04 (3 SEC. GUSTS).

AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 1235 S.W. 87 AVE
 MIAMI, FLORIDA 33174
 TEL. (305) 264-8100 FAX. (305) 262-6978

SERIES 400 ALUM WINDOW WALL SYSTEM (L.M.I.)

ECO WINDOW SYSTEMS, LLC.
 9114 N.W. 106 STREET
 MEDLEY, FL. 33178
 TEL. (305) 885-5299 FAX (305) 885-5902

date: 08-13-09

scale: 1/2"=1'-0"

dr. by: HAMID

chk. by:

revisions:

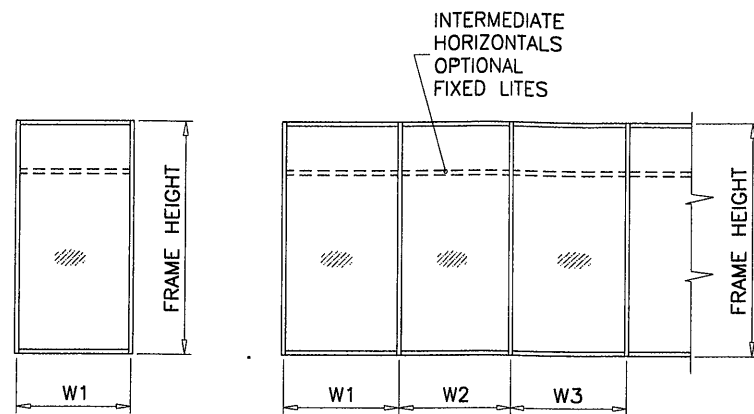
no	date	by	description
A	12.11.12		REV. PER RER COMMENTS

drawing no.

W09-42

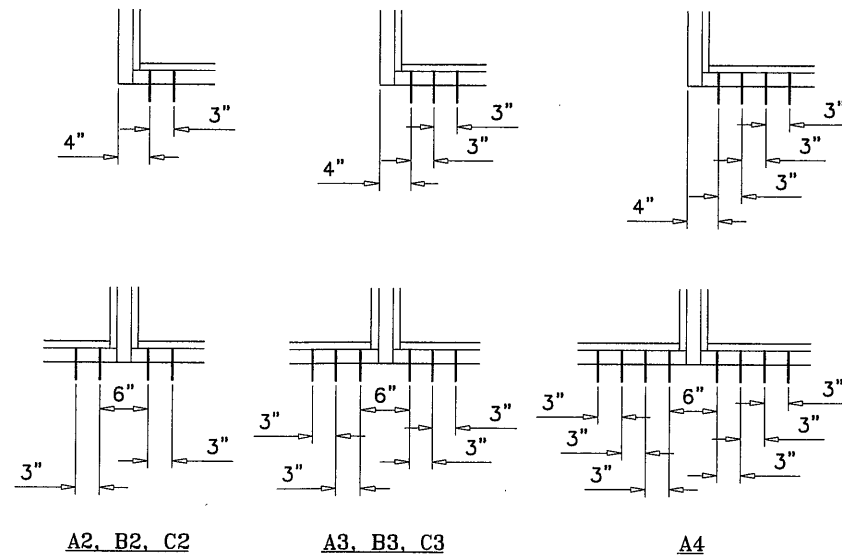
sheet 3 of 9

ANCHOR LOAD CAPACITY - PSF EXT.(+) & INT.(-)								
NOMINAL DIMS.		ANCHORS TYPE 'A'			ANCHORS TYPE 'B'		ANCHORS TYPE 'C'	
WIDTH (W)	FRAME HEIGHT	A2	A3	A4	B2	B3	C2	C3
30"	72"	100.0	100.0	100.0	100.0	100.0	100.0	100.0
36"		100.0	100.0	100.0	100.0	100.0	100.0	100.0
42"		100.0	100.0	100.0	100.0	100.0	100.0	100.0
48"		89.7	100.0	100.0	100.0	100.0	100.0	100.0
54"		79.7	100.0	100.0	100.0	100.0	100.0	100.0
60"		71.7	100.0	100.0	92.0	100.0	100.0	100.0
30"	78"	100.0	100.0	100.0	100.0	100.0	100.0	100.0
36"		100.0	100.0	100.0	100.0	100.0	100.0	100.0
42"		94.6	100.0	100.0	100.0	100.0	100.0	100.0
48"		82.8	100.0	100.0	100.0	100.0	100.0	100.0
54"		73.6	100.0	100.0	94.4	100.0	100.0	100.0
60"		66.2	99.3	100.0	84.9	100.0	100.0	100.0
30"	84"	100.0	100.0	100.0	100.0	100.0	100.0	100.0
36"		100.0	100.0	100.0	100.0	100.0	100.0	100.0
42"		87.8	100.0	100.0	100.0	100.0	100.0	100.0
48"		76.9	100.0	100.0	98.6	100.0	100.0	100.0
54"		68.3	100.0	100.0	87.6	100.0	100.0	100.0
60"		61.5	92.2	100.0	78.9	100.0	100.0	100.0
30"	90"	100.0	100.0	100.0	100.0	100.0	100.0	100.0
36"		95.6	100.0	100.0	100.0	100.0	100.0	100.0
42"		82.0	100.0	100.0	100.0	100.0	100.0	100.0
48"		71.7	100.0	100.0	92.0	100.0	100.0	100.0
54"		63.8	95.6	100.0	81.8	100.0	100.0	100.0
60"		57.4	86.1	100.0	73.6	100.0	100.0	100.0
30"	96"	100.0	100.0	100.0	100.0	100.0	100.0	100.0
36"		89.7	100.0	100.0	100.0	100.0	100.0	100.0
42"		76.9	100.0	100.0	98.6	100.0	100.0	100.0
48"		67.3	100.0	100.0	86.3	100.0	100.0	100.0
54"		59.8	89.7	100.0	76.7	100.0	100.0	100.0
60"		53.8	80.7	100.0	69.0	100.0	95.8	100.0
30"	102"	100.0	100.0	100.0	100.0	100.0	100.0	100.0
36"		84.4	100.0	100.0	100.0	100.0	100.0	100.0
42"		72.3	100.0	100.0	92.8	100.0	100.0	100.0
48"		63.3	94.9	100.0	81.2	100.0	100.0	100.0
54"		56.3	84.4	100.0	72.2	100.0	100.0	100.0
56"		54.3	81.4	100.0	69.6	100.0	96.6	100.0
30"	108"	95.6	100.0	100.0	100.0	100.0	100.0	100.0
36"		79.7	100.0	100.0	100.0	100.0	100.0	100.0
42"		68.3	100.0	100.0	87.6	100.0	100.0	100.0
48"		59.8	89.7	100.0	76.7	100.0	100.0	100.0
53"		54.1	81.2	100.0	69.4	100.0	96.4	100.0
54"		54.1	81.2	100.0	69.4	100.0	96.4	100.0
30"	114"	90.6	100.0	100.0	100.0	100.0	100.0	100.0
36"		75.5	100.0	100.0	96.8	100.0	100.0	100.0
42"		64.7	97.1	100.0	83.0	100.0	100.0	100.0
48"		56.6	84.9	100.0	72.6	100.0	100.0	100.0
50"		54.4	81.5	100.0	69.7	100.0	96.8	100.0
51"		54.4	81.5	100.0	69.7	100.0	96.8	100.0
30"	120"	86.1	100.0	100.0	100.0	100.0	100.0	100.0
36"		71.7	100.0	100.0	92.0	100.0	100.0	100.0
42"		61.5	92.2	100.0	78.9	100.0	100.0	100.0
48"		53.8	80.7	100.0	69.0	100.0	95.8	100.0



WIDTH (W) = W1
AT FRAME JAMB

WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION



ANCHORS TYPES: SEE SHEET 5 FOR DESCRIPTION

A2 = (2) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
B2 = (2) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
C2 = (2) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION

A3 = (3) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
B3 = (3) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
C3 = (3) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION

A4 = (4) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION

Approved as complying with the
Florida Building Code
Date 12/12/2012
NOA# 12-0801-02
Miami Dade Product Control
By *[Signature]*

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538
[Signature]
DEC 12 2012

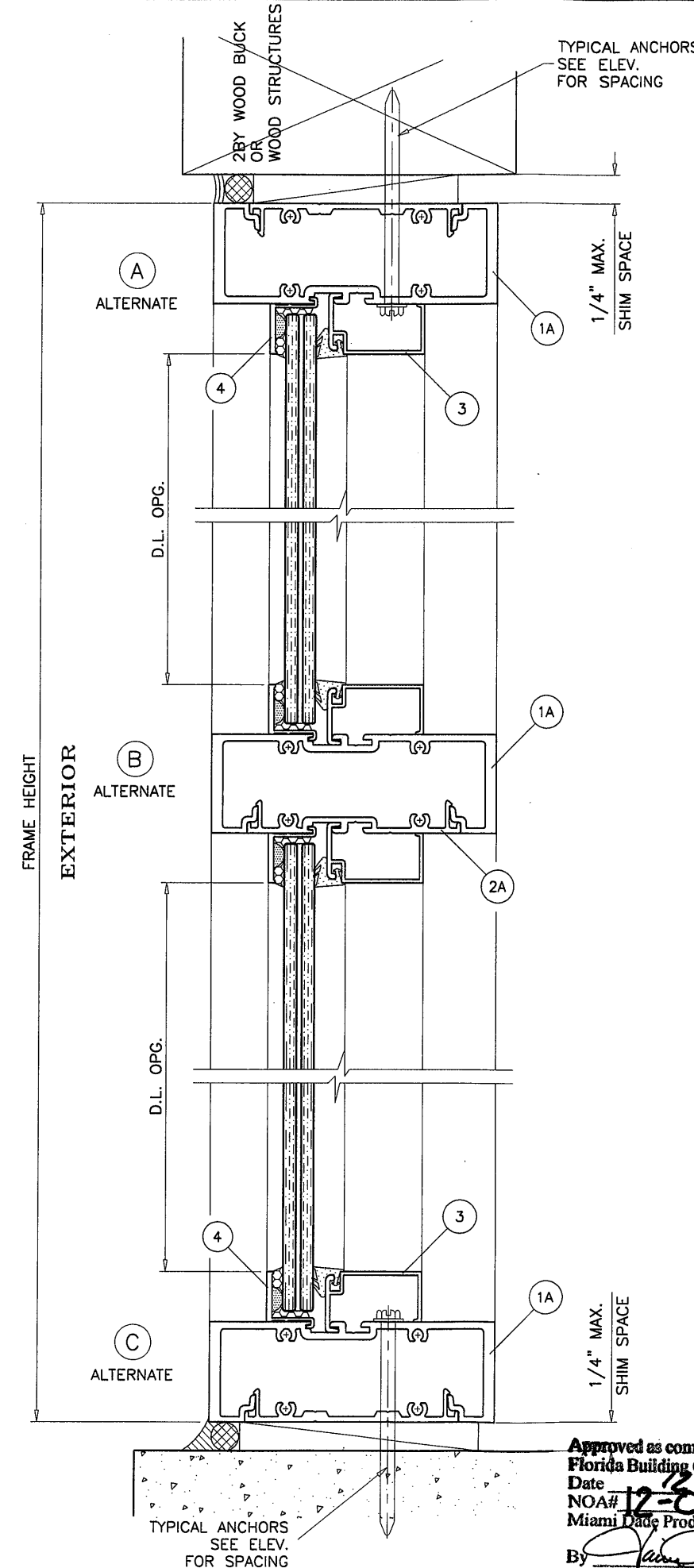
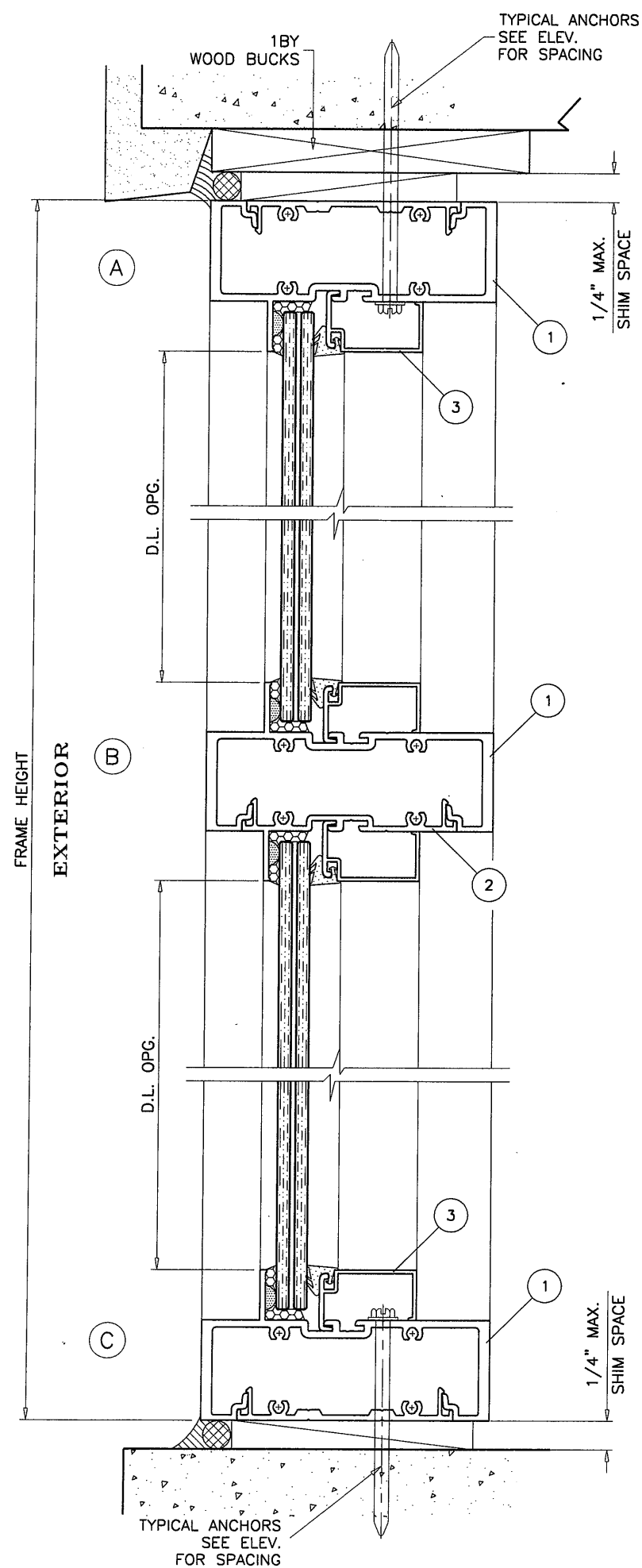
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978

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ECO WINDOW SYSTEMS, LLC.
9114 N.W. 106 STREET
MEDLEY, FL. 33178
TEL. (305) 885-5299 FAX (305) 885-5902

no	date	by	description
A	12.11.12		NO CHANGE THIS SHEET

date: 08-13-09
scale: 1/2"=1'-0"
dr. by: HAMID
chk. by:

drawing no.
W09-42
sheet 4 of 9



WOOD BUCKS AND METAL STRUCTURE NOT BY ECO WINDOWS MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

TYPE 'A'
1/4" DIA ULTRACON BY 'ELCO' ($F_u=177$ KSI, $F_y=155$ KSI)
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES WITH 1-1/2" MIN. PENETRATION INTO WOOD
 THRU 1BY WOOD BUCKS INTO CONCRETE WITH 1-1/4" MIN. EMBED INTO CONCRETE
 DIRECTLY INTO CONCRETE OR MASONRY WITH 1-1/4" MIN. EMBED INTO CONC. OR MASONRY

ANCHOR EDGE DISTANCES
 INTO CONCRETE AND MASONRY = 2-1/2" MIN.
 INTO WOOD STRUCTURE = 1" MIN.

TYPE 'B'
5/16" DIA ULTRACON BY 'ELCO' ($F_u=177$ KSI, $F_y=155$ KSI)
 INTO WOOD STRUCTURES WITH 1-7/8" MIN. PENETRATION INTO WOOD
 THRU 1BY OR 2BY WOOD BUCKS INTO CONCRETE WITH 1-1/4" MIN. EMBED INTO CONCRETE
 DIRECTLY INTO CONCRETE OR MASONRY WITH 1-1/4" MIN. EMBED INTO CONC. OR MASONRY

ANCHOR EDGE DISTANCES
 INTO CONCRETE AND MASONRY = 3" MIN.
 INTO WOOD STRUCTURE = 1-1/4" MIN.

TYPE 'C'
#14 SMS OR SELF DRILLING SCREWS ST/ST (GRADE 2 CRS)
 INTO METAL STRUCTURES
 STEEL : 12 GA. MIN. ($F_y = 36$ KSI MIN.)
 ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR EDGE DISTANCES
 INTO METAL STRUCTURE = 1/2" MIN.

CONCRETE AT HEAD, SILL OR JAMBS $f'_c = 3000$ PSI MIN.
 C-90 HOLLOW/FILLED BLOCK AT JAMBS $f'_m = 2000$ PSI MIN.

SEALANTS:
 ALL FRAME JOINTS AND SEAMS SEALED WITH SCHNEE-MOREHEAD SM5504 ACRYL-R SEAM SEALER.

Approved as complying with the
 Florida Building Code
 Date 12/20/12
 NOA# 12-8861.02
 Miami Dade Product Control
 By [Signature]

Engr: JAVAD AHMAD
 CIVIL
 FLA. PE # 70592
 C.A.N. 3538
 DEC 12 2012

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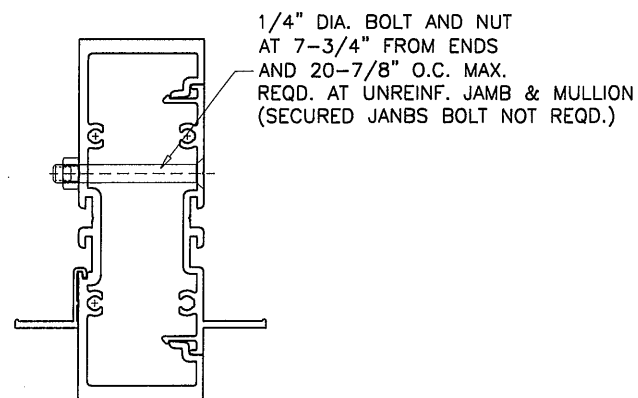
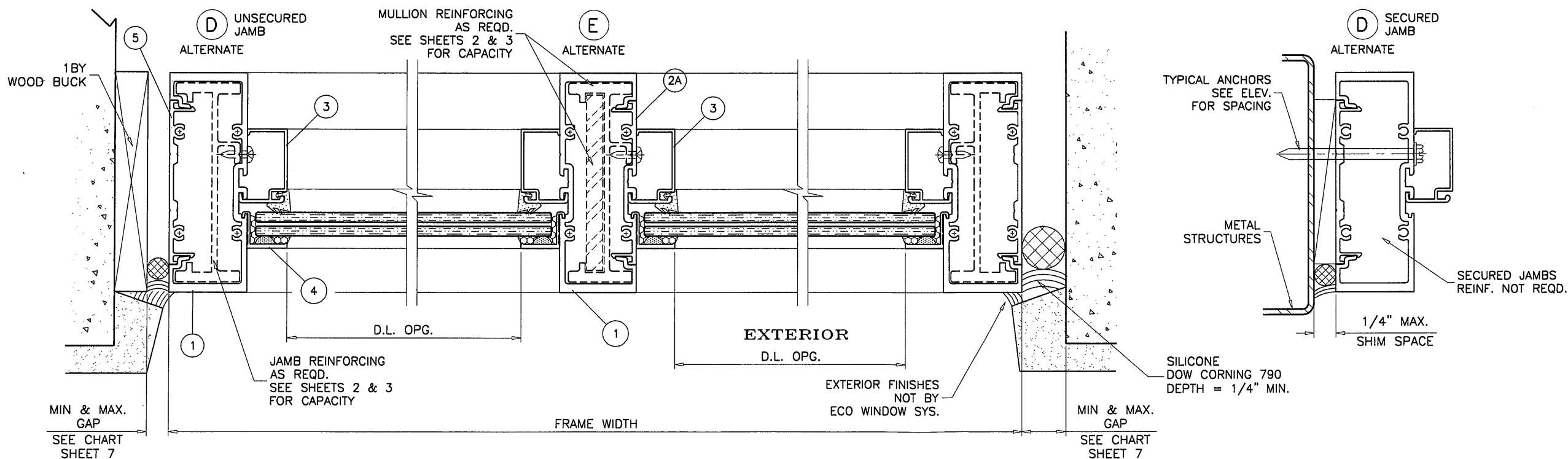
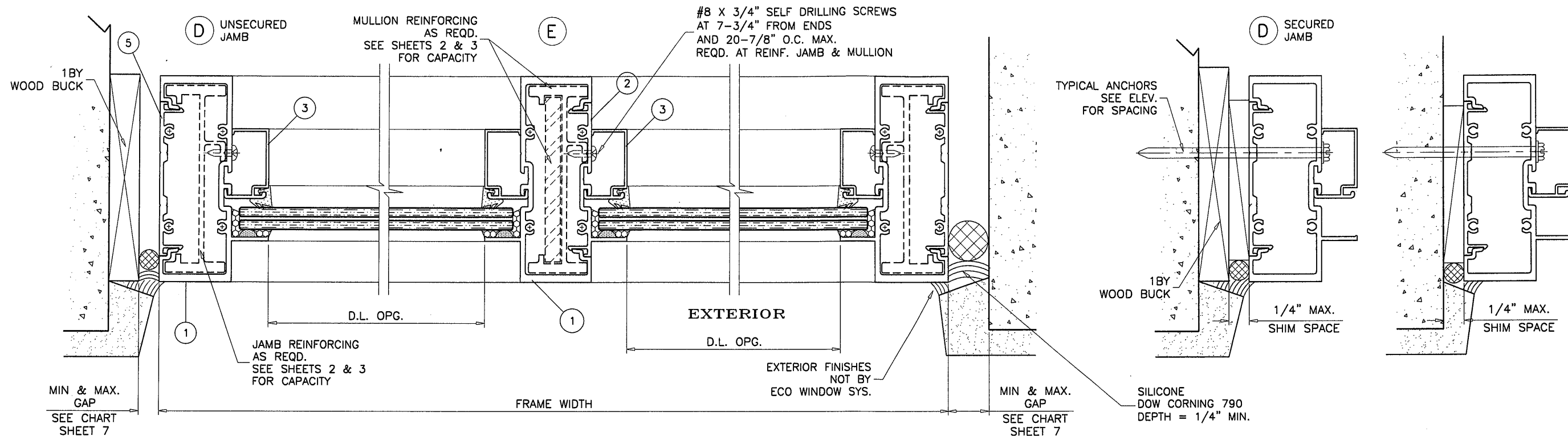
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ECO WINDOW SYSTEMS, LLC.
 9114 N.W. 106 STREET
 MEDLEY, FL. 33178
 TEL. (305) 885-5299 FAX (305) 885-5902

W09-42

revisions:		no	date	by	description
		A	12.11.12		REV. PER RER COMMENTS

date: 08-13-09	scale: 3/8" = 1"	dr. by: HAMID	chk. by:
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drawing no. **W09-42**
 sheet 5 of 9



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Florida Building Code
Date 12/20/2012
NOA# 12-0861.02
Miami Dade Product Control
By [Signature]

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538

[Signature]

DEC 12 2012

afc

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ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
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TEL. (305) 264-8100 FAX. (305) 262-6978
STORE W09-42ECO

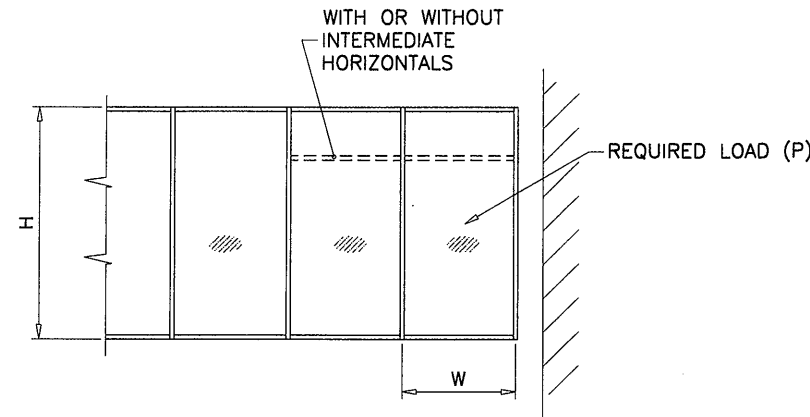
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revisions:		description
no	date	by
A	12.11.12	REV. PER COMMENTS

date: 08-13-09	scale: 3/8" = 1"	dr. by: HAMID	chk. by:
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drawing no.
W09-42
sheet 6 of 9

UNANCHORED JAMBS DEFLECTION AT 50 PSF			
NOMINAL DIMS.		JAMB W/O REINFORCING	JAMB WITH REINFORCING
WIDTH (W)	FRAME HEIGHT		
30"	84"	.071"	.051"
36"		.086"	.061"
42"		.100"	.072"
48"		.114"	.082"
54"		.128"	.092"
60"		.143"	.102"
30"	90"	.094"	.067"
36"		.113"	.081"
42"		.132"	.094"
48"		.150"	.108"
54"		.169"	.121"
60"		.188"	.135"
30"	96"	.122"	.087"
36"		.146"	.105"
42"		.170"	.122"
48"		.195"	.140"
54"		.219"	.157"
60"		.244"	.175"
30"	102"	.155"	.111"
36"		.186"	.134"
42"		.217"	.156"
48"		.248"	.178"
54"		.279"	.200"
56"		.290"	.208"
30"	108"	.195"	.140"
36"		.234"	.168"
42"		.273"	.196"
48"		.312"	.224"
53"		.345"	.247"
30"	114"	.242"	.174"
36"		.291"	.208"
42"		.339"	.243"
48"		.387"	.278"
50"		.404"	.289"
30"	120"	.297"	.213"
36"		.357"	.256"
42"		.416"	.298"
48"		.476"	.341"



TO OBTAIN DEFLECTION AT PROJECT
DETERMINE APPLICABLE JAMB (UNREINFORCED OR REINFORCED)

- 1) OBTAIN REQUIRED PRESSURE.
- 2) OBTAIN DEFLECTION AT 50 PSF (D50)
FROM CHART AT LEFT.
- 3) OBTAIN PROJECT DEFLECTION (PD).

$$PD = \frac{P}{50} \times D50$$

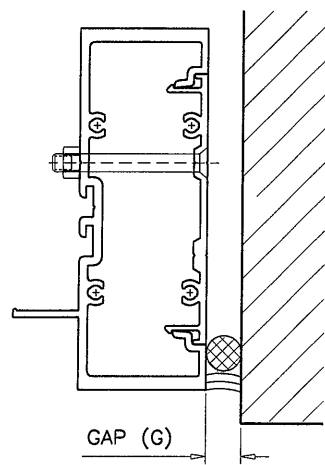
(PD MUST NOT EXCEED L/180)

FROM CHART BELOW DETERMINE THE MIN. GAP (G)
APPLICABLE TO PROJECT.

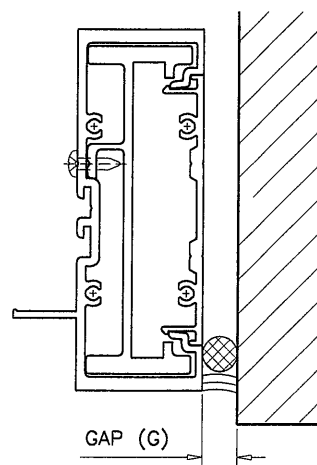
MAXIMUM GAP = 1"
MINIMUM GAP = 1/4"

DEFLECTION	GAP	
	MIN.	MAX.
.280"	.250"	1.000"
.420"	.375"	1.000"
.560"	.500"	1.000"
.667"	.595"	1.000"

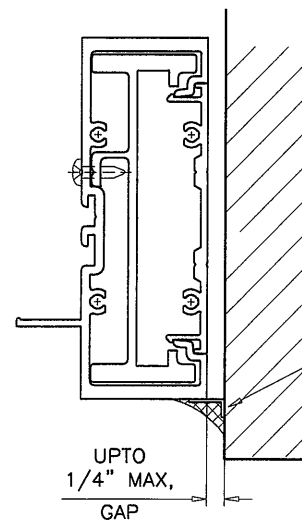
ALTERNATE SEALANTS AT JAMB GAPS CAN BE
DESIGNED BY ENGINEER OF RECORD
BASED ON MANUFACTURER GUIDE LINES.



JAMB W/O REINFORCING



JAMB WITH REINFORCING



CONDITIONS WITH GAP
1/4" OR LESS TO BE
REVIEWED ON JOB TO JOB BASIS

Approved as complying with the
Florida Building Code
Date 12/20/2012
NOA# 12-0861.02
Miami Dade Product Control
By [Signature]

NOTE:
DATA IN THIS SHEET MAY BE USED TO QUALIFY
SEALANT TO BE USE AT UNANCHORED JAMBS.
MAXIMUM MOVEMENT CONSIDERED = ±50% (STRETCH)
PLEASE REFER TO SEALANT MANUFACTURER'S DATA
AND APPLICATION MANUAL.

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538
[Signature]
DEC 12 2012

AL-FAROOQ CORPORATION
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STORE W09-42ECO

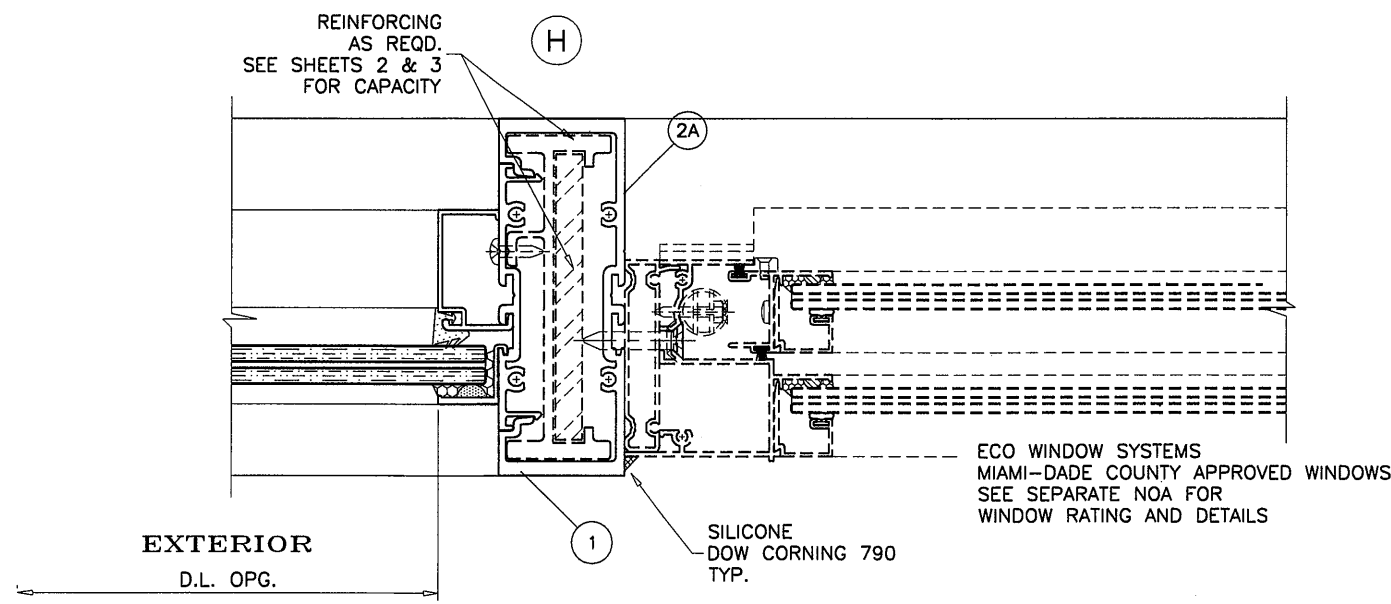
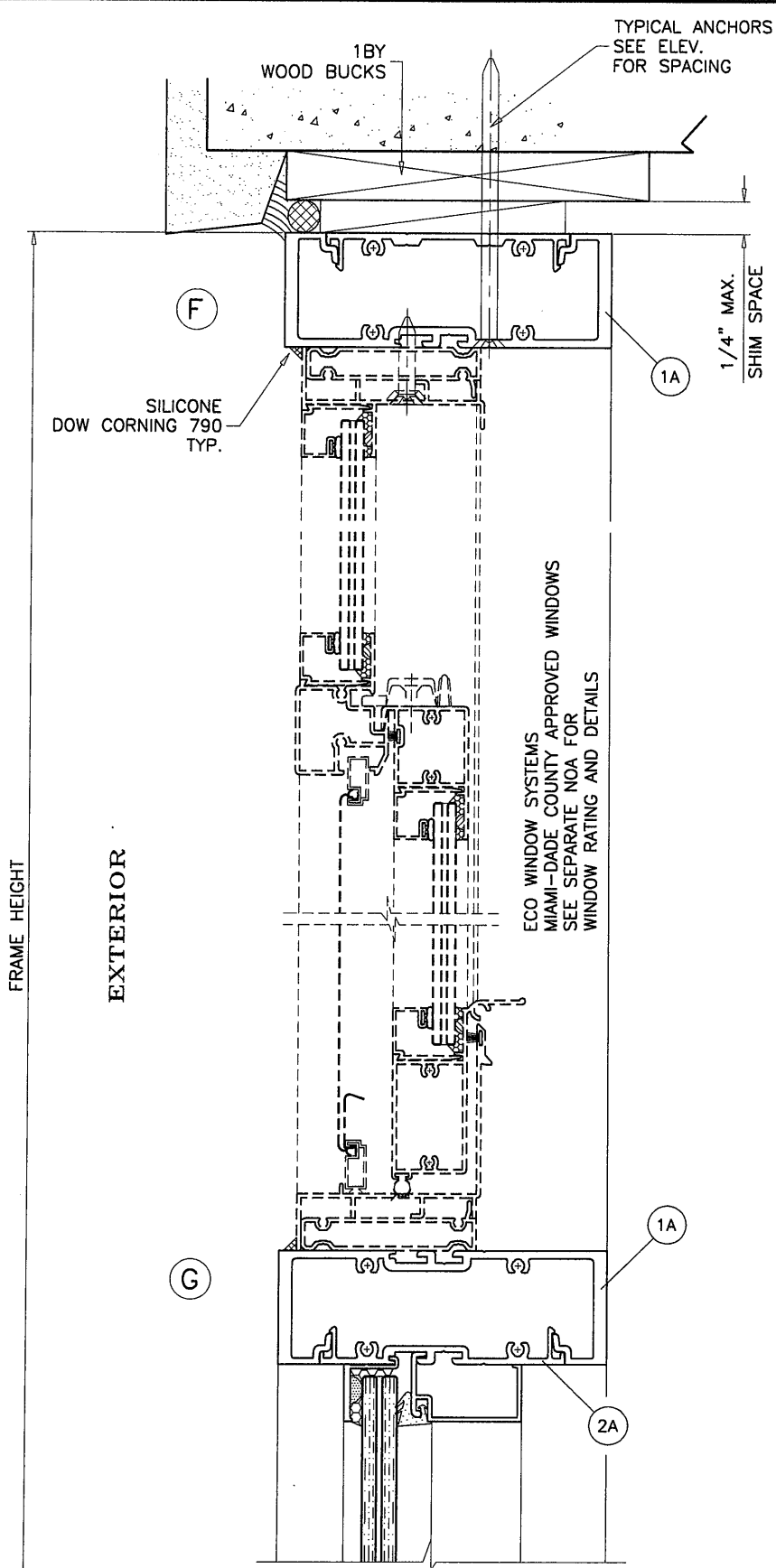
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revisions:

no	date	by	description
A	12.11.12		REV. PER RER COMMENTS

date: 08-13-09
scale: 3/8" = 1"
dr. by: HAMID
chk. by:

drawing no.
W09-42
sheet 7 of 9



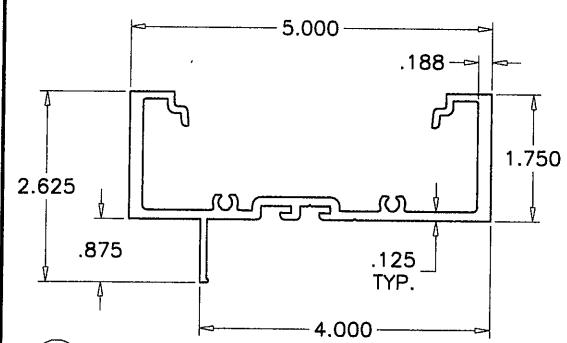
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 Florida Building Code
 Date 12/12/2012
 NOA# 12-0801.02
 Miami Dade Product Control
 By [Signature]

Engr: JAVAD AHMAD
 CIVIL
 FLA. PE # 70592
 C.A.N. 3538
[Signature]
 DEC 12 2012

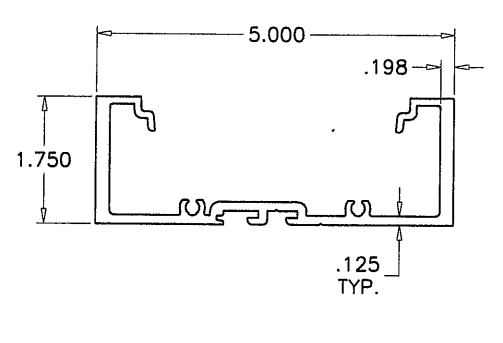
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AL-FAROOQ CORPORATION
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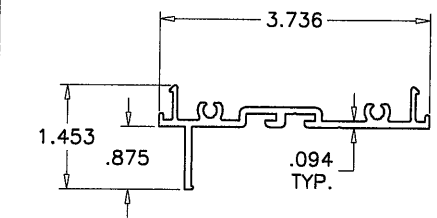
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date:	08-13-09	scale:	3/8" = 1"	dr. by:	HAMID
				chk. by:	
drawing no.	W09-42				
sheet	8	of 9			



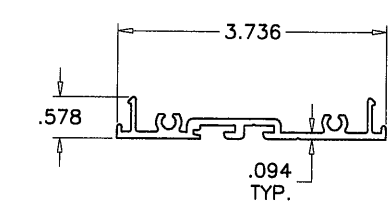
1
FRAME HEAD/SILL/JAMB/MULLION



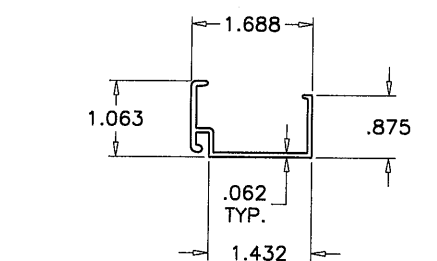
1A
ALT. FRAME HEAD/SILL/JAMB/MULLION



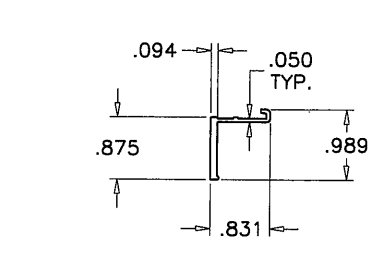
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SNAP IN MATE



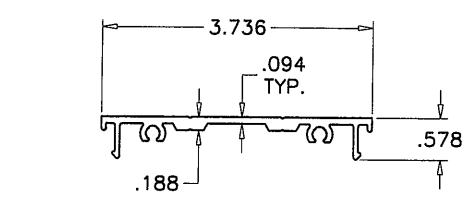
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ALT. SNAP IN MATE



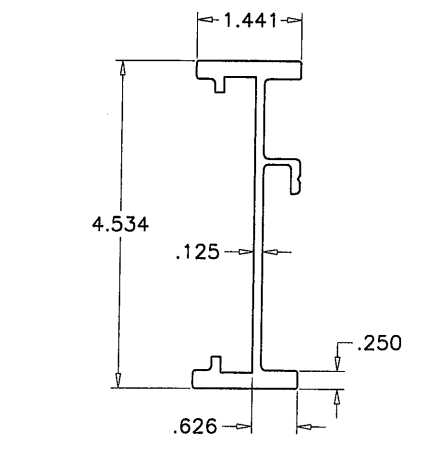
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GLAZING BEAD



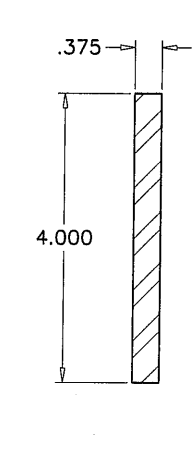
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FRAME INSERT



5
SHEAR CLIP

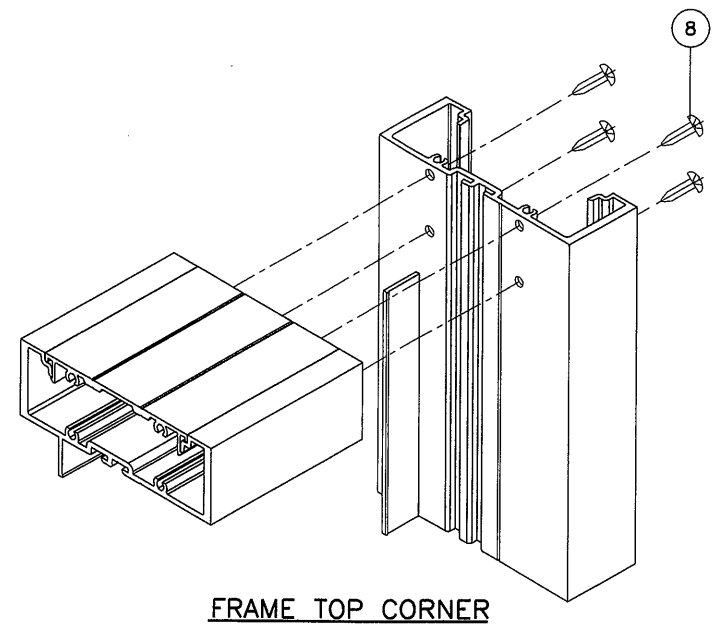


6
STIFFENER INSERT

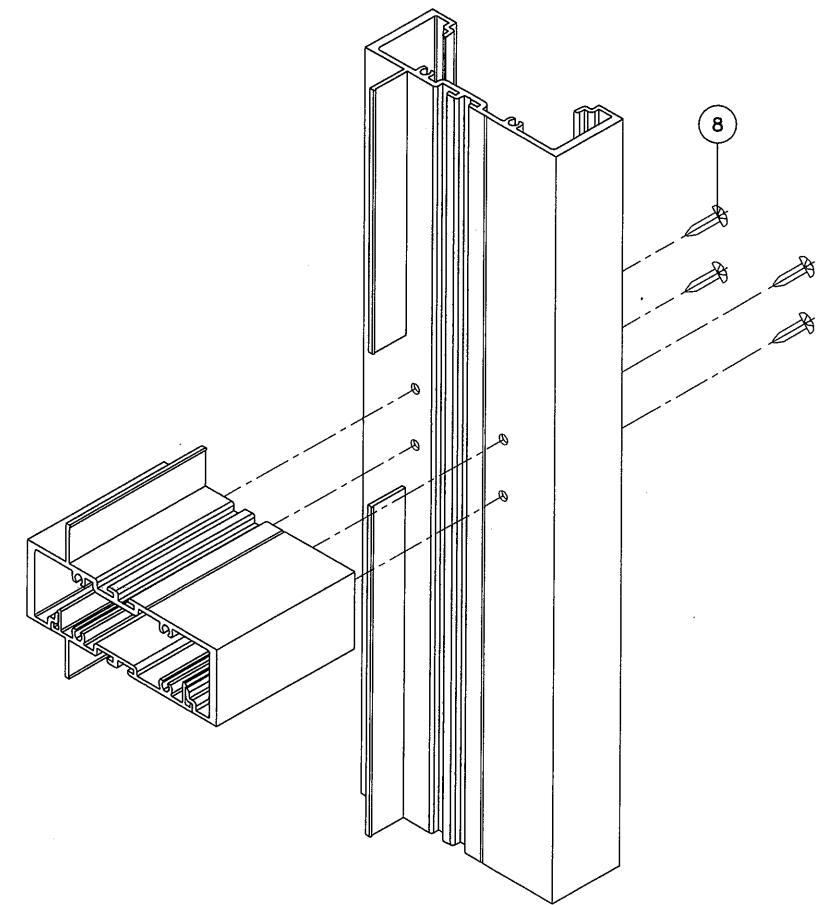


6A
STIFFENER BAR

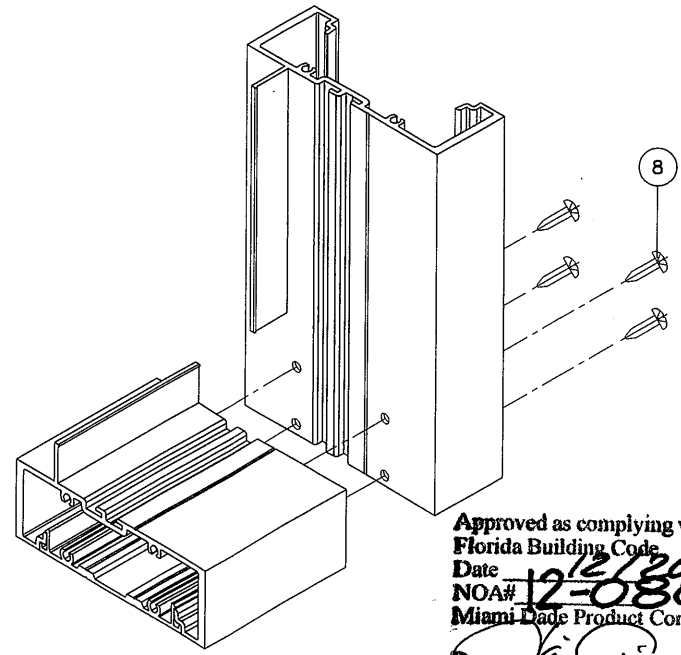
ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	UW-401	AS REQD.	FRAME HEAD/SILL/JAMB/MULLION	6063-T6	-
1A	UW-407	AS REQD.	ALT. FRAME HEAD/SILL/JAMB/MULLION	6063-T6	-
2	UW-402	AS REQD.	SNAP-IN MATE	6063-T6	-
2A	UW-402	AS REQD.	ALT. SNAP-IN MATE	6063-T6	-
3	UW-404	AS REQD.	GLAZING BEAD	6063-T6	-
4	UW-408	AS REQD.	FRAME INSERT	6063-T6	-
5	UW-403	AS REQD.	SHEAR CLIP	6063-T6	-
6	UW-408	AS REQD.	STIFFENER INSERT	6063-T6	-
6A	-	AS REQD.	STIFFENER BAR	GALV. STEEL	-
7	UW-406	AS REQD.	GLAZING GASKET	NEOPRENE	DUROMETER 55±5 SHORE A
8	#12 X 1-1/4"	4/ CORNER	FRAME ASSEMBLY SCREWS	-	PH SMS
9	-	2/ LITE	SETTING BLOCKS AT 1/4 POINTS	NEOPRENE	3/16" X 1/2" X 2" LONG
10	-	AS REQD.	GLASS SPACER	SILICONE	FRANK LOWE



FRAME TOP CORNER



HORIZONTAL CORNER



FRAME BOTTOM CORNER

Approved as complying with the
Florida Building Code
Date 12/20/2012
NOA# 12-0861.02
Miami Dade Product Control
By *[Signature]*

Engr: JAVAD AHMAD
CIVIL
FLA. PE # 70592
C.A.N. 3538
[Signature]
DEC 12 2012

af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
1235 S.W. 87 AVE
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SERIES 400 ALUM WINDOW WALL SYSTEM (L.M.I.)
ECO WINDOW SYSTEMS, LLC.
9114 N.W. 106 STREET
MEDLEY, FL. 33178
TEL. (305) 885-5299 FAX (305) 885-5902

revisions:	no	date	by	description
	A	12.11.12		NO CHANGE THIS SHEET

date: 08-13-09
scale: 3/8" = 1"
dr. by: HAMID
chk. by:

drawing no.
W09-42
sheet 9 of 9